

REMARKS

Claims 2-27 and 29-55 are pending in this application. Claims 7 and 34 were amended to more particularly point out and distinctly claim the invention. Claims 13 and 40 were rewritten to be in dependent form and to conform to the amended language in claims 7 and 34. The remaining dependent claims which were amended were done so to conform to the amended language in claims 7 and 34. New claim 55 was added to further define the invention. Withdrawal of the outstanding rejections is respectfully requested for at least the reasons set forth below.

No new matter was entered. The new limitations in claims 7 and 34 are fully disclosed in the original specification. For example, Fig. 4 shows a plurality of groups of network configuration settings, namely, G1 through G5. Each performance test uses a different group of settings. The limitations of new claim 55 are met by the stored network configuration settings 135, as described, in part, on paragraph [00027] on page 6, lines 18-20 of the specification.

Examiner Interview Summary

Applicants wish to thank Examiner Gold for extending the courtesy of a personal interview in respect to this application on September 11, 2006 with Applicants' undersigned representative and the inventor, Adam Schran. During the interview, the items listed on a previously faxed agenda were discussed. No agreements were reached at the interview regarding the patentability of certain proposed claim amendment approaches. A finalized version of such claim amendments are presented herein for formal consideration.

Prior Art Rejections

Claims 2-3, 5-14, 18, 23, 26, 27, 29-30, 32-41, 45, 50, 53 and 54 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,505,249 (Rehkopf).

Claims 4, 15-17, 19-22, 24, 25, 31, 42-44, 46-49, 51 and 52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rehkopf.

Claims 13 and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rehkopf in view of U.S. Patent No. 6,189,008 (Easty et al.), hereafter, “Easty.”

Applicants respectfully traverse the § 102(e) and § 103(a) rejections over Rehkopf as they pertain to the currently pending claims. Applicants further respectfully traverse the § 103(a) rejection over Rehkopf in view of Easty et al.

1. Rehkopf

A. Discussion repeated from previous Office Action:

Rehkopf discloses a method for benchmarking and optimizing end-to-end processing performance of a computer network system. The method operates as follows:

- a. System performance variables are selected.
- b. A baseline performance test is run using an initial set of values for the system performance variables to produce a benchmark system performance.
- c. The system performance variables are fixed at the initial set of values.
- d. A floating variable is selected from among the system performance variables.
- e. Subsequent tests are run with the floating variable set to different values, and system performance indicators that result from each subsequent test are recorded. The system performance indicators are compared to the benchmark system performance. An optimal value of the floating variable is then recorded that optimizes the system performance indicators.
- f. Another floating variable is then selected from among remaining system performance variables that have not yet been selected to be the floating variable.
- g. Steps (e) and (f) are repeated until all of the system performance variables have been selected as the floating variable.
- h. Each of the system performance variables are then fixed to its optimal value.

Rehkopf’s method can be characterized as a “brute force” method in that each system performance variable is individually tested while keeping the other system performance variables constant. (The system performance variable being tested during each iteration is the “floating variable.”)

Rehkopf’s method has at least the following disadvantages:

a. The test process may take a long amount of time because each system performance variable must be individually tested throughout its entire potential range of values. If there are a large number of system performance variables, the test time may be extremely long.

b. After each system performance variable is individually tested, its “optimal value” is determined only in view of the initial values of the other system performance variables (which remain fixed at their initial values during the testing). However, it is very common that certain system performance variables affect other system performance variables. Thus, each system performance variable may actually have a better (i.e., more optimal) value if one or more of the other system performance variables were set to a value other than their initial values. Rehkopf’s method has no process for determining the best set of system performance variables.

c. No prior knowledge of previously determined optimal system performance variables is used in Rehkopf. Such knowledge could potentially speed up the testing process by reducing or eliminating the number of system performance variables that would need to be tested, or by reducing the range of values to be tested for the current floating variable.

B. New discussion of Rehkopf

If the initial set of values (or a subset of the initial set of values) is considered to be equivalent to the claimed group of network configuration settings, at best, Rehkopf discloses defining only one group of network configuration settings. Rehkopf always reverts back to the same initial set of values (i.e., the same group of network configuration settings) every time that the floating variable is changed. Thus, the concept of defining a plurality of groups of network configuration settings and conducting performance tests on the different groups of defined network configuration settings is completely absent from Rehkopf.

2. Patentability of claims 7 and 34 over Rehkopf

Amended claim 7 reads as follows (underlining added for emphasis):

7. A method of optimizing network configuration settings for a user's client machine, the method comprising:
(a) defining a plurality of groups of network configuration settings;

- (b) establishing a network connection between the client machine and a remote server;
- (c) selecting one of the groups of network configuration settings for the client machine from the defined groups of settings;
- (d) automatically conducting one or more performance tests using the selected network configuration settings;
- (e) repeating steps (c) and (d) for one or more other groups of network configuration settings; and
- (f) automatically adjusting the network configuration settings of the client machine defined in the groups based on the results of the performance tests, wherein the adjusted network configuration settings are settings that optimize the performance of the client machine.

As discussed above, at best, Rehkopf only defines one group of network configuration settings (i.e., the initial set of values, or a subset of the initial set of values) and always selects that same group, even when repeating performance tests. Rehkopf does not disclose or suggest the concept of defining a plurality of groups of network configuration settings and conducting performance tests on the different groups of defined network configuration settings.

On page 11 of the outstanding Office Action, the Examiner refers to various text portions of Rehkopf as allegedly disclosing the claimed invention, stating that Rehkopf's floating variable is used in addition to the "predefined group of settings." The highlighted text portions merely confirm the explanation of Rehkopf provided above. The Examiner's position appears to be that even if the floating variable is ignored, the remaining system performance variables define a predefined group of settings. However, as discussed above, these variables are always fixed to their respective initial values, and thus always define the same group of settings.

To further clarify the differences highlighted above, claim 7 was amended to more clearly recite that there are a plurality of defined groups of network configuration settings, and that performance tests are conducted on more than one of the groups (see the "repeating" step (e) in claim 7). Amended claim 7 is thus believed to patentably distinguish over the testing scheme described in Rehkopf.

Amended claim 34 is similar to amended claim 7, and thus is believed to be patentable for at least the same reasons set forth above.

3. Easty and the combination of Rehkopf and Easty

Easty relates to aggregating past content selections of users so as to configure an endpoint server with content that is most likely to be requested. The scheme in Easty operates as follows:

a. Information received from users are analyzed to generate an “aggregate profile of the endpoint server.” The “aggregate profile of the endpoint server” represents the collective characteristics and preferences of a plurality of users served by the endpoint server. For example, the preferences may be defined by the frequency that a particular content item or type of content is requested (column 3, lines 2-4).

b. The central server selects a subset of master contents stored in a central database based on an analysis of the aggregate profile of the endpoint server.

c. The selected subset of the master contents is stored in the endpoint database for distribution to the users.

Using aggregation concepts for content selection queuing is a completely different and non-analogous concept than using aggregation concepts for selecting network configuration settings. That is, Easty is directed to content selection, whereas the present invention is directed to network configuration setting selection. Easty is not directed to the same problem in the art addressed by the present invention, nor is Easty in the same field of endeavor as the present invention. Easty is thus non-analogous prior art and therefore cannot be combined with Rehkopf to provide the missing limitations in Rehkopf related to aggregate test results and the use of such results to receive recommendations for network configuration settings.

4. Patentability of dependent claims 13 and 40 over Rehkopf in view of Easty

Claims 13 and 40 are believed to be allowable because they depend upon respective allowable independent claims 7 and 34, and because they recite additional patentable steps.

Claims 13 and 40 further recite that a remote server stores network configuration settings and aggregate test results associated with other client machines that previously established a network connection with the remote server, and that a user's client machine receives network configuration setting recommendations from the remote server, based on the network configuration settings and the aggregate test results stored on the remote server. No such limitation is even remotely disclosed or suggested in Rehkopf.

In the outstanding Office Action, the Examiner admits that Rehkopf lacks these limitations and relies upon Easty for such limitations. However, as discussed above, Easty is directed to a completely different invention, and is non-analogous prior art, and thus cannot be combined with Rehkopf to make up for the deficiencies in Rehkopf.

5. Advantages of claimed invention over Rehkopf

The schemes in claims 7, 13, 34 and 40 do not suffer from the highlighted disadvantages of the Rehkopf scheme for at least the following reasons:

a. The claimed test process can be performed very quickly because it is not necessary to vary each network configuration setting throughout a given range to identify an optimal value. Even if there are a large number of network configuration settings to test, the test time is determined only by the number of groupings to be tested (which can be limited to a small number based on various algorithmic techniques), not by the number of network configuration settings or their potential range of settings.

b. The claimed test process is not constrained by always keeping certain network configuration settings to an “initial value” as described in Rehkopf’s scheme. Based on past test data, the individual network configuration settings in each predefined group can be selected to an optimal value taking into account some or all of the other network configuration settings in that particular group. The claimed process is thus a better technique to identify the truly best set of network configuration settings for a particular client machine.

c. As described above, the claimed process can use prior knowledge of previously determined optimal network configuration settings to identify potentially good groups of network configuration settings, thereby potentially speeding up the testing process and improving the likelihood of identifying the truly best set of network configuration settings for a particular client machine.

6. Patentability of dependent claims

The dependent claims are believed to be allowable because they depend upon respective allowable independent claims, and because they recite additional patentable steps.

Conclusion

Insofar as the Examiner's rejections were fully addressed, the instant application is in condition for allowance. A Notice of Allowability of all examined claims, and all withdrawn claims depending from the examined claims, is therefore earnestly solicited.

Respectfully submitted,
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